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Supplementary Information

Self-assembly of monodispersed hierarchically porous Beta-SBA-15 with different morphologies and their hydro-upgrading performances of FCC gasoline

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Fig. S1 XRD patterns of Beta-SBA-15 composites synthesized from the Beta nanocrystals with different crystallization times in the low angle (A) and wide angle (B) domains.



Fig. S2 SEM micrograph (A), EDX mapping (B-D) and EDX spectra (E-F) of

Beta-SBA-15 with platelet morphology.



Fig. S3 SEM micrograph (A), EDX mapping (B-D) and EDX spectra (E-F) of

Beta-SBA-15 with sphere morphology.



Fig. S4 SEM micrograph (A), EDX mapping (B-D) and EDX spectra (E-F) of

Beta-SBA-15 with short-rod morphology.



Fig. S5 SEM micrograph (A), EDX mapping (B-D) and EDX spectra (E-F) of

Beta-SBA-15 with long-rod morphology.



Fig. S6 Possible structures of the as-synthesized Beta-SBA-15.



Fig. S7 FTIR spectra of pyridine adsorbed on the oxide CoMo catalysts after degassing at (A) 200 and (B) 350 °C.



Fig. S8 NH₃-TPD profiles of the catalysts.



Fig. S9 The RON values and the sulfur contents of the products over the catalysts with different loadings of Co species.



Fig. S10 The tendencies of the OHY and HDS activities over the catalysts with different loadings of Co species.